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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/045,927	01/09/2002	Thomas B. Berg	BEA920000017US1	3067

23441 7590 06/30/2004

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EXAMINER

MOAZZAMI, NASSER G

ART UNIT PAPER NUMBER

2187

DATE MAILED: 06/30/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/045,927

Applicant(s)

BERG ET AL.

Examiner

Nasser G Moazzami

Art Unit

2187

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 06/08/2004 has been entered.

Response to Arguments

2. Applicant's arguments filed 06/08/2004 have been fully considered but they are not persuasive. In response to applicant's arguments, examiner refer the applicant to the followings:

Luick's patent clearly discloses a plurality of nodes [**nodes 101**] that are connected together by an interconnecting pathway [**interconnect bus 124, and GCU 123 of figure 1**], wherein the interconnecting pathway stores information regarding the state of data [**the global coherence table indicates that the data is being shared and also indicates where the most current data resides (see column 2, lines 50-54)**]. Interconnect monitoring device monitors communication between the nodes and detects transfers of data from one node to another [**column 2, lines 46-48**].

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Luick et al., hereinafter Luick (U.S. Patent No. 6,088,769).

As for claims 1-2, 4-5, and 7-9, Luick discloses a method for maintaining cache coherence [**maintaining coherence between memories (column 1, line 9)**] in a multiprocessor system having a plurality of nodes [**nodes 101 (see Fig. 1)**], each node having at least one cache [**cache 115 and cache 117 (see Fig. 1)**], a memory device local to the node [**memory 105 (see Fig. 1)**], and at least one processor device [**processor 103 (see Fig. 1)**], the method comprising: storing information regarding the state of data [**global coherence table 129 indicate the most current copy of data and where it is reside (column 2, lines 50-54)**] in an interconnect [**interconnect bus 124 and global coherence unit 123 (see Fig. 1)**] communicatively connecting said nodes with one another [**note the connection of the nodes with each other through the interconnect bus 124 and global coherence unit 123 (see Fig. 1)**]; checking said stored information to determine the location of the most current copy of a requested

portion of data, in response to a request by a requesting node for the requested portion of data **[the global coherence table indicate the data is being shared and also where the most current copy of the data is resided (column 2, lines 50-54)]**; retrieving said current copy of requested portion of data and directing said data to the requesting node **[transferring the data from a first node to a second node (column 2, lines 58-59)]**; checking said stored information to determine the location of the requested data **[global coherence table preferably indicates the location of data (column 2, lines 52-55)]**; and directing the system to send said requested data to the requesting node without going through the said interconnecting communications pathway node **[when the request hits the local coherence unit. There is no need to go through the interconnect]**.

As for claim 3, Luick discloses that each node includes memory **[local caches 115, 117, and local memory 105 (see Fig. 1)]** accessible to it without communications through said interconnect **[checking local caches or local memory for the requested data (see Fig. 3, steps 301 through 309)]**, and memory accessible remotely by others of the nodes **[sending the request to other nodes (see Fig. 3, steps 313 through 321)]**.

As for claim 6, Luick discloses a dispatch buffer **[cache controller 113 (see Fig. 1)]**.


Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nasser G Moazzami whose telephone number is (703) 305-0017. The examiner can normally be reached on 7:00AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Sparks can be reached on (703) 308-1756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

6. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**NASSER MOAZZAMI
PRIMARY EXAMINER**



06/25/2004